

**REMARKS**

Favorable reconsideration and allowance of the instant application are respectfully requested. Claims 1-17 are pending in the present application, with claims 1 and 12 being independent.

***Claim Rejections Under 35 USC §102***

The Examiner rejected 1, 3-5, 10, 12, 14, and 15 under 35 USC 102(b) as being anticipated by Plunkett (US Patent No. 4,093,900). This rejection is respectfully traversed insofar as it pertains to the presently pending claims.

Independent claim 1 is directed to a multi-stage dynamic brake resistor network including a plurality of dynamic brake resistors for dissipating regenerative energy inputted onto a system bus, a plurality of switches for connecting the dynamic brake resistors to and from the system bus, respectively, and a control circuit for controlling the switches such that the dynamic brake resistors are connected to and from the system bus based on a predetermined voltage threshold of the system bus and based on a predetermined rotation pattern. Independent claim 12 is directed to a method of switching a plurality of dynamic brake resistors to and from a system bus, the method comprising: detecting a voltage level of the system bus; determining if the voltage level of the system bus exceeds a predetermined threshold; switching the plurality of dynamic brake resistors to and from the system bus via switches so that the dynamic brake resistors dissipate regenerative energy inputted onto the system bus; controlling, by a control circuit, the switches in order to connect the dynamic brake resistors to and from the system bus on the basis of a predetermined voltage threshold of the system bus and on the basis of a predetermined rotation

pattern.

The Examiner alleges that Plunkett teaches all of the features of at least independent claims 1 and 12. Applicant respectfully disagrees. More specifically, Applicants respectfully submit that Plunkett fails to teach or suggest at least that the dynamic brake resistors are connected to and from the system bus based on a predetermined rotation pattern, as recited in independent claims 1 and 12.

Plunkett is directed to a dynamic brake blending for an inverter propulsion system. Plunkett, however, contains absolutely no teaching, as alluded to above, that the dynamic brake resistors are connected to and from a system bus on the basis of a predetermined rotation pattern.

Referring to, for example, paragraphs 33 and 34 of the present application, it is clearly taught that the order of activation of the dynamic brake resistors is rotated to relieve the stress on the power components. For example, if two resistors are activated, the rotation sequence is AB, BC, CD, DA, AB, etc. whereby A, B, C, and D each represent a resistor.

In contrast thereto, Plunkett merely teaches that the dynamic brake resistors are stepwise connected and disconnected depending on a voltage threshold. Referring to col. 12, lines 21-39, of Plunkett, it is taught that the switch actuators are energized and deenergized “to selectively step through the available resistance stages.” In other words, on the basis of three resistors, seven steps of resistance can be selected. However, the resistors of Plunkett are never rotated, as claimed in the present application. Therefore, Plunkett does not anticipate independent claims 1 and 12 because Plunkett contains absolutely no teaching that the resistor are connected or disconnected on the basis of a predetermined rotation pattern.

Dependent claims 3-5, 10, 14, and 15 should be considered allowable at least for

depending from an allowable base claim.

Accordingly, withdrawal of the rejection is respectfully requested.

### ***Claim Rejections Under 35 USC §103***

The Examiner rejected claim 2 under 35 USC 103(a) as being unpatentable over Plunkett in view of Kumar (US Patent No. 5,323,095); and claims 6-9, 13, 16, and 17 under 35 USC 103(a) as being unpatentable over Plunkett in view of EP 0393814 or JP 63-161886. This rejection is respectfully traversed.

Dependent claims 2, 6-9, 13, 16, and 17 are dependent claims that should be considered allowable at least for depending from an allowable base claim.

Accordingly, withdrawal of the rejection is respectfully requested.

### ***Conclusion***

In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at telephone number (703) 205-8000, which is located in the Washington, DC area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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